ADEQ
ARKANSAS
Department of Environmental Quality

Interoffice Memorandum

TO : Tammie Hynum, Manager, Technical Branch, Hazardous Waste Division (HWD)

THROUGH : Annette Cusher, Engineer Supervisor, Technical Branch, HWD

FROM : Clay McDaniel

DATE : July 15, 2009

SUBJECT : Cedar Chemical Facility - West Helena, AR
Comments on Wormald submittal:
Focused Feasibility Study Report for Site 3 dated June 29, 2009
AFIN 54-00068 EPA ID ARD990660649

The above mentioned report addresses contamination found in Site 3 by listing remediation options and then selects the option which best meets their criteria. The remedy chosen by Wormald was to place a deed restriction on an area 0.26 acres located in Site 3.

To help in selecting a remedy, a model was made to calculate the potential for dinoseb to be released from the 0.26 acre area located in Site 3. This model is based on the assumption that dinoseb is located within the sub-surface soil from 4-8 feet bgs. However, this is a very rough approximation, and there are potentially higher concentrations of dinoseb in soil and groundwater below this sub-soil interval.

In addition, the horizontal extent of contamination at Site 3 has not been adequately delineated. Based on the data from the Facility Investigation Report dated June 28, 1996 prepared by Ensafe, the investigation of contamination at Site 3 mainly consisted of surface soil/sediment samples. Based on the contamination found in sub-surface soil borings completed at Site 3, there is a high probability of contamination located outside of the area identified in this report.

Even if contamination is isolated to the small area in Site 3, there remains the potential for migration of dinoseb into Site 3. Not only could this occur through surface water runoff but also through infiltration and leaching into groundwater from the perched zone to the alluvial zone. Temporary wells Tw-1 and Tw-6 had concentrations of dinoseb that were at 5400 mg/kg (at 16' bgs) and 22,000 mg/kg (at 19' bgs) respectively in the September of 2008 AMEC FI Report. MW- 16 and MW-18 had concentrations of 840 mg/kg (at 24'bgs) and 1400 mg/kg (at 24' bgs) respectively as well in the same 2008 report. These results were reported for dinoseb in the perched zone groundwater. All of the Monitoring wells referenced are just to the northeast of Site 3.

ADEQ made comments on the Facility Invest Report in a letter dated May 21, 2009. Comment no. 1 of this letter stated: "The statement that "no further delineation is required" is not necessarily correct and should be revised." This comment was not adequately addressed and has thus carried over to inadequate data in this Focused Feasibility Study Report.

Also noted from soil data in Figure 19 from the Current Conditions Report, November 2007, the dinoseb may get suspended within the clay stringers that exist in the stratigraphy of the area. The area, which predominately consists of silts, clays, and sands, contain clays that will bind to certain chemicals if the

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correct ions are present. This appears to be the case at this site, for example a particular boring IMSB-1, which exuberate levels of dinoseb in the soil at 1-3' < 1.6 mg/kg; then at 3-8' 63,000 mg/kg**;** and then 8-12' levels are < 1.7 mg/kg. This is apparent site wide.

According to RAGS Part E, it is recommended to assume 100% ABS_{GI} value for organic chemical not appearing in exhibit 4-1. The RGO calculations for dinoseb in the report use a value of 0.5 ABS_{GI}. These calculations should be revised using 100% ABS_{GI} value.

While a deed restriction may be an appropriate remedy or part of a remedy, this decision should be based on more data to fully define the extent of contamination and to assess the potential for contaminant migration into Site 3.